

WHAT IS CLAIMED IS:

1. A watercraft having a hull defining an engine compartment in which an engine is provided, said engine including at least one exhaust port for discharging exhaust gases from said engine to the atmosphere through an exhaust system, said exhaust system comprising an exhaust passage extending between an exhaust manifold of said engine and an exhaust discharge port provided on a first side of a hull tunnel of said hull, said exhaust passage including a watertrap device provided on a second side of said hull tunnel opposite said first side, said exhaust passage including an intermediate portion extending between said watertrap device and said discharge port, said intermediate portion extending above a top of said hull tunnel, and a first chamber branched from and communicating with said intermediate portion.
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2. A watercraft as in Claim 1, wherein said first chamber branches upwardly from said intermediate portion.
3. A watercraft as in Claim 1, wherein said first chamber is provided at a position above said hull tunnel.
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4. A watercraft as in Claim 3, wherein said first chamber is provided at a position downstream from an apex of said intermediate portion.
5. A watercraft as in Claim 1, wherein said intermediate portion includes a throat provided between said first chamber and said intermediate portion, through which said first chamber and said intermediate portion communicate, and said throat and said chamber being tuned so as to form a Hemholtz resonator to attenuate noise from said engine.
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6. A watercraft as in Claim 5, wherein said throat and said Hemholtz resonator are arranged so as to branch upwardly from said intermediate portion.
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7. A watercraft as in Claim 1, additionally comprising a second chamber communicating with said intermediate portion at a position between said first chamber and said discharge port, said first chamber having a cross-sectional area larger than a cross-sectional area of said intermediate portion.
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8. A watercraft as in Claim 7, wherein said first chamber branches upwardly from said intermediate portion, and wherein said second chamber comprises a cavity elongated in a substantially horizontal direction.

9. A watercraft as in Claim 8, wherein said intermediate reservoir is arranged such that a maximum rated water line of said watercraft loaded with a maximum rated load is below an upper wall of said second chamber.

10. A watercraft as in Claim 9, wherein said intermediate portion includes a connector portion extending a predetermined length into an interior of said second chamber.

11. A watercraft as in Claim 10, wherein said second chamber and said predetermined length are configured such that an amount of water sufficient to fill said second chamber to the maximum rated waterline is not sufficient to flow past said connector portion when said watercraft is inverted.

12. A watercraft as in Claim 10, wherein said intermediate portion includes a throat provided between said chamber and said intermediate portion, through which said chamber and said intermediate portion communicate, said throat and said first chamber being tuned so as to form a Hemholtz resonator and to attenuate noise from said engine, and said connector portion and said Hemholtz resonator being tuned so as to provide sound attenuation of the exhaust of said engine.

13. A watercraft as in Claim 1, additionally comprising a cooling jacket configured to circulate a coolant in thermal communication with said exhaust passage, a first telltale port and a second telltale port configured to discharge a stream of the coolant at a position forward of an operator's seating position of said watercraft, said first telltale port communicating with said cooling jacket at a position upstream from said second telltale port.

14. A watercraft as in Claim 13, wherein said exhaust passage additionally comprises an expansion chamber portion including an expansion chamber and a downstream portion communicating with said expansion chamber portion through an exhaust passage coupling, and extending downstream from said expansion chamber portion, said cooling jacket including a first portion in thermal communication with said expansion chamber portion and a second portion in thermal communication with said downstream portion, said first and second portions of said cooling jacket fluidically communicating through said exhaust passage coupling, said first telltale port communicating with said first portion of said cooling jacket and said second telltale port communicating with said second portion of said cooling jacket.

15. A watercraft having a hull defining an engine compartment in which an engine
is provided, said engine including at least one exhaust port for discharging exhaust gases
from said engine to the atmosphere through an exhaust system, said exhaust system
comprising an exhaust passage extending between an exhaust manifold of said engine and
5 an exhaust discharge port provided on a first side of a hull tunnel of said hull, said exhaust
passage including a watertrap device provided on a second side of said hull tunnel opposite
said first side, said exhaust passage including an intermediate portion extending between
said watertrap device and said discharge port, said intermediate portion extending above a
top of said hull tunnel, and a first chamber communicating with said intermediate portion
10 and having a cross-sectional area larger than a cross-sectional area of said intermediate
portion, said first chamber provided downstream of an apex of said intermediate portion,
said first chamber being disposed relative to a maximum rated water line of said watercraft
such that an upper wall of said first chamber lies above said maximum rated waterline.

16. A watercraft as in Claim 15, wherein said intermediate portion includes a
15 connector portion extending a predetermined length into an interior of said first chamber.

17. A watercraft as in Claim 16, wherein said first chamber and said predetermined
length are configured such that an amount of water sufficient to fill said first reservoir to
the maximum rated water line is not sufficient to flow past said connector portion when
said watercraft is inverted.

20. A watercraft as in Claim 16, further comprising a Hemholtz resonator branched
from said intermediate portion at a position downstream from an apex of said intermediate
portion.

19. A watercraft having a hull defining an operator's seating position and an engine
25 compartment in which an engine is provided, said engine including at least one exhaust
port for discharging exhaust gases from said engine to the atmosphere through an exhaust
system, said exhaust system comprising an exhaust passage extending between an exhaust
manifold of said engine and an exhaust discharge port, a cooling jacket configured to
circulate coolant in thermal communication with said exhaust passage, and first and second
telltale ports configured to discharge streams of cooling jacket liquid at positions forward
30 of the operator's seating position of said watercraft.

20. A watercraft as in Claim 19, wherein said exhaust passage additionally
comprises an expansion chamber portion including an expansion chamber and a

downstream portion communicating with said expansion chamber portion through an exhaust passage coupling, and extending downstream from said expansion chamber portion, said cooling jacket including a first portion in thermal communication with said expansion chamber portion and a second portion in thermal communication with said downstream portion, said first and second portions of said cooling jacket fluidically communicating through said exhaust passage coupling, said first telltale port communicating with said first portion of said cooling jacket and said second telltale port communicating with said second portion of said cooling jacket.

21. A watercraft as in Claim 19, wherein said first and second telltale ports are configured to discharge streams of coolant on opposite sides of said hull.

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